

Notice of Allowability	Application No.	Applicant(s)	
	10/642,427	RAAB ET AL.	
	Examiner	Art Unit	
	Travis M Reis	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed); a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to telephone interview with Mr. Cantor on 9/2/4.
2. ☒ The allowed claim(s) is/are 1-69.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>20030912,20040121</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Cantor on 9/2/4.

3. The application has been amended as follows:

A) In the specification:

In paragraph 0102 of the specification, line 1, after "structure" the following text has been inserted ---400---.

In paragraph 0105 of the specification, line 1, after "structure" the following text has been inserted ---450---.

In paragraph 0115 of the specification, line 2, "120" has been replaced with the following text ---121---.

In paragraph 0134 of the specification, line 8, "196" has been replaced with the following text ---696---.

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In paragraph 0145 of the specification, line 7, "504" has been replaced with the following text ---505---.

In paragraph 0147 of the specification, line 10, "260" has been replaced with the following text ---259---.

In paragraph 0148 of the specification, line 4, "259" has been replaced with the following text ---260---.

In paragraph 0149 of the specification, line 18, "292" has been replaced with the following text ---291---.

B) In the claims:

In claim 1, line 12, "forces" has been replaced with the following text: ---force---.

In claim 8, line 1 "joint" has been replaced with the following text: ---of said joints---.

In claim 22, line 1 "joint" has been replaced with the following text: ---of said joints---.

In claims 33, 34, & 35, line 1, "CMM" has been replaced with the following text: --
-method---.

4. Claims 36-39 have been replaced and claims 40-69 have been added as follows:

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5. The following changes to the drawings (copy attached) have been approved by the examiner and agreed upon by applicant:

In Figure 2, "4" should be ---deleted---.

In Figure 3, "19" should be ---deleted---; "42" should be replaced with ---41---.

In Figure 3A, "401" should be replaced with ---40'---.

In Figure 6, "42" should be replaced with ---41---.

In Figure 23A, "120" should be replaced with ---121---.

In Figure 26, "162" & "164" should be ---deleted---.

In Figure 27B, "196" should be replaced with ---696---.

In Figure 29, "209" should be replaced with ---204---.

In Figure 32, the lower "292" should be replaced with ---291---.

In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

6. The following is an examiner's statement of reasons for allowance:

With reference to claims 1-69, the prior art of record does not disclose or clearly suggest a method for providing feedback to the operator of a portable coordinate measurement machine which measures the position of an object in a selected volume, the CMM including a manually positionable articulated arm having opposed first and second ends, said arm including a plurality of joints, a measurement probe attached to a first end of said articulated arm and an electronic circuit which receives the position signals from transducers in said arm and which provides a digital coordinate corresponding to the position of the probe in a selected volume comprising sensing deformation of a portion of said articulated arm when said arm is placed under a load, said deformation being an indication of the magnitude of the external force being

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applied to such arm; and providing feedback to the operator of the CMM in response to said sensed external force, in combination with the remaining limitations in the claims.


Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Starr et al. discloses a measuring fixture (U.S. Patent 4274205). Park discloses a measuring method of machine tool accuracy using a computer aided kinematic transducer link (U.S. Patent 5111590). Herzog discloses a coordinate measuring device (U.S. Patent 5396712). Takatsuji et al. discloses a ball step gauge (U.S. Patent 6493957). Murohashi discloses an error adjusting method of a load converter (JP 402309223A).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Travis M Reis whose telephone number is (571) 272-2249. The examiner can normally be reached on 8--5 M--F. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on (571) 272-2245. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for all communications.

Travis M Reis
Examiner
Art Unit 2859


Diego Gutierrez
Supervisory Patent Examiner
Technology Center 2800

tmr
September 7, 2004